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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,765	02/25/2002	Rajesh S. Pazhyannur	CE09105R	4402

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EXAMINER

NGUYEN, TOAN D

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 11/17/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

10/082,765

Applicant(s)

PAZHYANNUR ET AL.

Examiner

Toan D Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: page 1 line 25 and page 3 lines 27 and 29, "09/534,971" should be --- 09/534,371 ---.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forslow (U.S. Patent 6,608,832 B2) in view of McDermott (EP 1175034 A2).

For claims 1 and 4-5, Forslow discloses common access between a mobile communications network and an external network with selectable packet-switched and circuit-switched and circuit-switched services comprising the steps of:

(a) receiving plurality of higher-layer packets (col. 4 lines 21-24);

(d) multiplexing higher-layer packets onto a lower-layer packet, the lower layer packet having size as determined in step (C) (col. 4 lines 28-34 and col. 12 lines 11-14); and

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(e) transmitting the lower-layer packet (col. 12 lines 11-14).

However, Forslow does not disclose:

(b) determining an error rate of a transmission;

(c) determining a lower-layer packet size based on the error rate.

In an analogous art, McDermott discloses:

(b) determining an error rate of a transmission (page 2, col. 2 lines 18-21 and page 8 lines 9-13);

(c) determining a lower-layer packet size based on the error rate (page 2, col. 2 lines 18-21 and page 8 lines 9-13). McDermott discloses further wherein the step of determining the error rate comprises the step of determining a bit error rate (BER) (page 2, col. 2 lines 18-21 and page 8 lines 9-13 as set forth in claim 4); wherein the step of determining the lower-layer packet size comprises the step of determining an optimal number of higher-layer packets that can be multiplexed onto a single lower-layer packet (figure 5B, col. 8 lines 9-19 as set forth in claim 5)

One skilled in the art would have recognized an error rate of a transmission to use the teachings of McDermott in the system of Forslow. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the error rate of a transmission as taught by McDermott in Forslow's system with the motivation being to provide a system that transmits image data or any other type of data in packets by RF carrier where the packet size is adjusted responsive to bit error rate (page 7 lines 7-10).

For claim 2, Forslow discloses wherein the step of receiving the plurality of higher layer packets comprises the step of receiving the plurality of higher-layer packets from a plurality of users (figure 1, col. 2 lines 14-22 and col. 4 lines 21-24).

For claim 3, Forslow discloses wherein the step of receiving the plurality of higherlayer packets comprises the step of receiving a plurality of higher-layer TCP/IP packets (col. 4 lines 21-24).

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For claim 6, Forslow discloses wherein the step of multiplexing the higher-layer packets onto the lower-layer packet comprises the step of multiplexing UDP/IP packets onto a single PPP packet utilizing PPPmuxing techniques (col. 4 lines 28-34 and col. 12 lines 11-14).

For claims 7 and 9-10, Forslow discloses common access between a mobile communications network and an external network with selectable packet-switched and circuit-switched and circuit-switched services comprising the steps of:

receiving a plurality of UDP/IP packets from a plurality of users (figure 1, col. 2 lines 14-22 and col. 4 lines 21-24);

multiplexing the plurality of UDP/IP packets onto a PPP packet having a size equal to the PPP packet size (col. 4 lines 28-34 and col. 12 lines 11-14); and

transmitting the PPP packet (col. 12 lines 11-14).

However, Forslow does not disclose:

determining an error rate;

determining a PPP packet size based on the error rate;

In an analogous art, McDermott discloses:

determining an error rate (page 2, col. 2 lines 18-21 and page 8 lines 9-13);

determining a PPP packet size based on the error rate (page 2, col. 2 lines 18-21 and page 8 lines 9-13). McDermott discloses further wherein the step of determining the error rate comprises the step of determining a bit error rate (BER) (page 2, col. 2 lines 18-21 and page 8 lines 9-13 as set forth in claim 9); wherein the step of determining the PPP packet size comprises the step of determining an optimal number of UDP/IP packets that can be multiplexed onto a single PPP packet (figure 5B, col. 8 lines 9-19 as set forth in claim 10).

One skilled in the art would have recognized an error rate of a transmission to use the teachings of McDermott in the system of Forslow. Therefore, it would have been obvious to one of ordinary skill in the

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art at the time of the invention, to use the error rate of a transmission as taught by McDermott in Forslow's system with the motivation being to provide a system that transmits image data or any other type of data in packets by RF carrier where the packet size is adjusted responsive to bit error rate (page 7 lines 7-10).

For claim 8, Forslow discloses wherein the step of receiving the plurality of UDP/IP packets comprises the step of receiving the plurality of UDP/IP packets from a plurality of remote or mobile users (figure 1, col. 2 lines 14-22 and col. 4 lines 21-24).

For claim 11, Forslow discloses wherein the step of multiplexing the plurality of UDP/IP packets onto the PPP packet comprises the step of utilizing PPPmuxing techniques to multiplex the plurality of UDP/IP packets onto the PPP packet (col. 4 lines 28-34 and col. 12 lines 11-14).

For claims 12 and 14, Forslow discloses common access between a mobile communications network and an external network with selectable packet-switched and circuit-switched and circuit-switched services comprising the steps of:

a multiplexer having a plurality of higher-layer packets as an input, and multiplexing the plurality of higher-layer packets onto a lower-layer packet, wherein the lower-layer packet has a size equal to the lower-layer packet size (col. 4 lines 28-34 and col. 12 lines 11-14).

However, Forslow does not disclose: a packet error estimator outputting a transmission error rate, a multiplexer having the transmission error rate as an input, determining a lower-layer packet size based on the transmission error rate.

In an analogous art, McDermott discloses a packet error estimator outputting a transmission error rate (page 5 col. 7 lines 51-55), a multiplexer having the transmission error rate as an input (figure 4, page 4, col. 6 lines 39-42), determining a lower-layer packet size based on the transmission error rate (page 2, col. 2 lines 18-21 and page 8 lines 9-13). McDermott discloses further wherein the transmission error rate is bit error rate (BER) (page 2, col. 2 lines 18-21 and page 8 lines 9-13 as set forth in claim 14).

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One skilled in the art would have recognized a packet error estimator outputting a transmission error rate use the teachings of McDermott in the system of Forslow. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the error rate of a transmission as taught by McDermott in Forslow's system with the motivation being to provide a system that transmits image data or any other type of data in packets by RF carrier where the packet size is adjusted responsive to bit error rate (page 7 lines 7-10).

For claim 13, Forslow discloses wherein the multiplexer is a PPP multiplexer performing PPPmuxing (col. 12 lines 11-14).

For claim 15, Forslow discloses wherein the higher-layer packets comprise UDP/IP packets (col. 4 lines 21-24).

For claim 16, Forslow discloses wherein the lower-layer packet comprises a PPP packet (col. 4 lines 32-33).

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan D Nguyen whose telephone number is 703-305-0140. The examiner can normally be reached on Monday- Friday (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Huy Vu can be reached on 703-308-6602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9600.

Toan D. Nguyen

Toan D. Nguyen